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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,450	12/16/2005	Akira Yoda	58343US005	3798

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EXAMINER	
GREEN, TRACIE Y	

ART UNIT	PAPER NUMBER
2879	

NOTIFICATION DATE	DELIVERY MODE
12/14/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/538,450	YODA ET AL.	
	Examiner	Art Unit	
	Tracie Y. Green	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 November 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,20 and 35-43* is/are pending in the application.

4a) Of the above claim(s) *42 and 43* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6, 20, and 35-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Receipt is acknowledged of applicant's amendments filed on 09/11/2007 and 11/30/2007. Claims 1-6, 20, and 35-43 are pending and an action on the merits is as follows.

1. Newly submitted claims 42-43 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: these claims are drawn to a method of making a flexible mold.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 42-43 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-3, 20, 35, 37-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al (PG-PUB, U.S. 2003/0044727) in view of Sugimoto et al. (U.S. Patent 5,209,688)

Regarding claim 1, Park et al teaches, (currently amended) a support (Figure 3A, #30) and a molding layer (Figure 3A, #31) disposed on said support; wherein said molding layer (Figure 3B, #31) comprises a rib formation surface Figure 3B, #31) with a groove pattern (Figure 3B) having planar portions (Figure 3C, #31a) that connect the grooves with one another and a non-rib region (Figure #3C, #30) (Examiner note, Figures 3 clearly teaches a non-rib portion that is created due to the impression derived from the mold occupying at least a part of a peripheral portion of said rib formation surface

Park et al is silent regarding wherein the non-rib region has a thickness greater ~~less~~ than the planar portions that connect the grooves.

In the same field of endeavor of plasma display devices, Sugimoto et al. teaches wherein the non-rib region (Figure 4, peripheral region) has a thickness (Figure 5, t and

paragraph 40, lines 1-3) greater ~~less~~ than the planar portions (Figure 5, w and Paragraph 37, lines 7-10) that connect the grooves (Figure 5) in order to provide a mold that is usable using a variety of materials as well as decreases the amount time to manufacture (Paragraph 8, lines 1-4)

Therefore it would have been obvious to one of ordinary skill at the time of the invention to modify the flexible mold of Park et al. with wherein the non-rib region has a thickness greater ~~less~~ than the planar portions that connect the grooves in order to provide a mold that is usable using a variety of materials as well as decreases the amount time to manufacture as taught by Sugimoto et al.

Regarding claim 2, Park et al teaches wherein said support and said molding layer are transparent, (Paragraph 49 lines 105)

Regarding claim 3, Park et al. teaches layer is equipped in said rib region with a portion necessary for forming a thin film made of the same material as that of said ribs between adjacent ribs, (Paragraph 34 lines 1-5) (Examiner takes the position that since the rib material is overlayed over the entire substrate, that a thin film is produced especially as the prior art shows no steps for removing the rib material from the outer portion.

Regarding claim 20,

A) A PDP back surface plate (Figure 4a, #30) comprising a substrate (Figure 4a, #40) (Paragraph 49, lines1-5)

B) Having formed thereon a rib pattern layer (Figure 3a, #31) having a rib region having ribs (Figure 4A, #) 41 having a predetermined shape and a

predetermined size and a non-rib region (Figure 4c) occupying at least a part of a peripheral portion of said rib region, wherein a thin film made of the same material as that of said ribs is formed to a predetermined thickness in said non-rib region. (Paragraph 49, lines 1-5) (Examiner takes the position that since the rib material is over-layed over the entire substrate, that a thin film is produced especially as the prior art shows no steps for removing the rib material from the outer portion)

Regarding claim 35, (previously presented), Park et al teaches wherein the thin film has a thickness that approaches zero (Paragraph 34, lines 1-4) (Examiner takes the position that since the mold results in a depressions and grooves being formed on the support, that the thin films thickness would automatically approach zero as it thickness decreases as the mold is removed (Figure 3C)

Regarding claim 37, (previously presented) Park et al teaches wherein the molding layer consists of a cured product of a curable material selected from the group comprising a photo-curable (meth)acrylate monomer, a photo-curable (meth)acrylate oligomer, and mixtures thereof.(Paragraph 40 lines 1-6 and Paragraph 41, lines 1-2)

Regarding claim 38, (previously presented) Park et al teaches wherein the curable material is selected from the group consisting of urethane acrylate, polyester acrylate and polyether acrylate (Paragraph 41 lines 1-6)

Regarding claim 39, (previously presented) Park et al teaches wherein the groove pattern is a straight pattern consisting of a plurality of grooves portions

arranged substantially in parallel (Figure 4c, #41a) with one another

Regarding claim 40, (previously presented) wherein the groove pattern is a grid pattern (Figure 4c, #41a)

4. Claims 4 and 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al in view of Sugimoto et al as applied to claim(s) above, and further in view of Chiu et al (PG-Pub, U.S 2002/0038916)

Regarding claims 4 and 6, Park et al as modified by Sugimoto et al. discloses flexible mold set forth above (see claim 1). Park et al. as modified by Sugimoto et al. is silent regarding wherein inclination is applied to a terminal portion of each of said groove patterns in said molding layer (claim 4); and wherein said molding layer further includes alignment marks applied to said rib non-formation portion (claim 6).

In the same field of endeavor of plasma display devices, Chiu et al teaches wherein inclination is applied to a terminal portion of each of said groove patterns (Figure 4) in said molding layer and wherein said molding layer further includes alignment marks applied to said rib non-formation portion (Paragraph 48, lines 1-10) in order to provide molding that improves the alignment of the barrier ribs onto the substrate.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the flexible mold of Park et al wherein inclination is applied to a terminal portion of each of said groove patterns in said molding layer; and wherein said molding layer further includes alignment marks applied to said rib non-

formation portion in order to provide molding that improves the alignment of the barrier ribs onto the substrate as taught by Chiu et al.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al in view of Sugimoto et al as applied to claim(s) above, and further in view of Kim et al (PG-Pub, U.S. 2003/0134506 A1)

Park et al's invention, as modified by Sugimoto et al, discloses all of the claimed limitations from above (see claim 1). Park et al. as modified by Sugimoto et al. is silent except for wherein corners are removed from an upper end portion of a sidewall of said groove pattern.

In the same field of endeavor of plasma display panels, Kim et al teaches wherein corners (Figure 1, #20) are removed from an upper end portion of a sidewall of said groove pattern (Figure 1, #18 and Paragraph 104, lines 1-5) in order to provide a device whereby the discharge cell is stronger on the inside portion and becomes weaker as it approaches the outer end thus obtaining high luminous efficiency (Paragraph 11, lines 1-10)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the flexible mold of Park et al wherein corners (Figure 1, #20) are removed from an upper end portion of a sidewall of said groove pattern (Figure 1, #18 and Paragraph 104, lines 1-5) in order to provide a device whereby the discharge cell is stronger on the inside portion and becomes weaker as it approaches the outer end thus obtaining high luminous efficiency as taught by Kim et al.

6. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al in view of Sugimoto et al as applied to claim(s) above, and further in view of Carre et al. (U. S. Patent 5,853,446)

Park et al. as modified by Sugimoto et al. discloses the flexible mold set forth above (see claim 1)). Park et al. as modified by Sugimoto et al. is silent regarding wherein the support is made of at least one plastic material selected from the group consisting of polyethylene terephthalate, polyethylene naphthalate, stretched polypropylene, polycarbonate, and triacetate.

In the same field of endeavor of plasma display devices, Carre et al. teaches wherein the support is made of at least one plastic material selected from the group consisting of polyethylene terephthalate, polyethylene naphthalate, stretched polypropylene, polycarbonate, and triacetate (Column 7, lines 4-10) in order to achieve a low to moderate crosslink density (Column 6, lines 60-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the flexible mold of Park et al wherein the support is made of at least one plastic material selected from the group consisting of polyethylene terephthalate, polyethylene naphthalate, stretched polypropylene, polycarbonate, and triacetate in order to achieve a low to moderate crosslink density as taught by Carre et al.

7. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al in view of Sugimoto et al as applied to claim(s) above, and further in view of Yonehara et al (PG-PUB, US 2004/0046504)

Park et al. as modified by Sugimoto et al. discloses the flexible mold set forth above (see claim 1). Park et al. as modified by Sugimoto et al. is silent regarding wherein the thickness of the non-rib region is within the range of 5 to 40 μm (Paragraph 73, lines 1-3 and Paragraph 74, lines 1-3) (Examiner note, prior art reference discloses a back substrate being 2.6

In the same field of endeavor of plasma display devices, Yonehara et al. teaches wherein the thickness of the non-rib region is within the range of 5 to 40 μm in order to (Paragraph 73, lines 1-3 and Paragraph 74, lines 1-3) in order to produce a thin device for use in displays.

Therefore it would have been obvious to one of ordinary skill in the art to wherein the thickness of the non-rib region is within the range of 5 to 40 μm in order to in order to produce a thin device for use in displays as taught by Yonehara.

Response to Arguments

Applicant's arguments filed 09/11/2007 have been fully considered but they are not persuasive applicant states for the following reasons: applicant contends that the cited paragraph of the Park et al. reference does not teach the PDP Panel. To further clarify the examiner's position, applicant's attention is further drawn to paragraph 62, lines 3-4 and paragraph 64, lines 1-3. Applicant contends that this reference does not teach a PDP Panel with a substrate and barrier ribs. The substrate, which is stated in claim 20, is represented by figure 6a, #60; furthermore, claim 20, "substrate formed thereon a rib pattern layer" again applicant's attention is drawn to figure 6C, #61a in

which after the process step in figure 6b, the outcome is a barrier rib pattern on a "rear substrate".

The applicant further contends that the in Park et al reference figure 3C, #32 and figure 4a-4c, #42 teaches a peripheral portion having a same thickness as the planar portion which connects the grooves. Examiner agrees with this assessment made by the applicant. However, the client proceeds to point the examiner to pages 9, lines 27 to page 10, line 22, which states that the thickness of the peripheral portion to be greater or less than that of the planar portion connecting the grooves. Examiner respectfully points to the amendment of claims filed on June 10, 2005 on which the office action on merits is based. Claim 1 in this listing of claims neither states the limitation of the thickness of the peripheral portion to be greater or less than the planar portion connecting the grooves.

Applicant is further reminded that the examiner is not required to read In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the thickness of the peripheral portion being greater or less than the planar portion that connects the groove is not recited in the rejected claim (1). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracie Y. Green whose telephone number is 571/270-3104. The examiner can normally be reached on Monday-Thursday- 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571/272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Tracie Green
December 4, 2007

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